

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An electrolyte composition comprising ionic liquid and a halogen-based redox pair, wherein the ionic liquid including includes dicyanoamide anions as anions.
2. (Original): The electrolyte composition according to claim 1, wherein the ionic liquid comprises cations having quaternized nitrogen atom.
3. (canceled):
4. (Original): The electrolyte composition according to claim 1 as an electrolyte of a photoelectric conversion element.
5. (Original): A photoelectric conversion element comprising the electrolyte composition according to claim 1 as an electrolyte.
6. (Original): The photoelectric conversion element according to claim 5 being a dye-sensitized solar cell.

7. (Original): The electrolyte composition according to claim 2 wherein the cations having quaternized nitrogen atom include quaternary ammonium, or cations of a nitrogen-containing heterocyclic compound.

8. (previously presented): The electrolyte composition according to claim 1 wherein the ionic liquid includes 1-ethyl-3-methylimidazolium dicyanamide, N-butylpyridinium dicyanamide, N-ethyl-N-methyl pyrrolidinium dicyanamide, N-propyl-N-methyl pyrrolidinium dicyanamide, N-butyl-N-methyl pyrrolidinium dicyanamide, N-hexyl-N-methyl pyrrolidinium dicyanamide, N-pentyl-N, N, N-triethyl ammonium dicyanamide, N-hexyl-N, N, N-triethyl ammonium dicyanamide, and N-pentyl-N, N, N-tributyl ammonium dicyanamide.

9. (Original): The electrolyte composition according to claim 8 wherein the ionic liquid is selected from the group consisting of 1-ethyl-3-methylimidazolium dicyanamide and N-butylpyridinium dicyanamide.

10. (currently amended): The electrolyte composition according to claim ~~3~~1 wherein the halogen-based redox pair includes halide ions and polyhalide ions.

11. (Original): The electrolyte composition according to claim 10 wherein the halide ions are selected from the group consisting of iodide ions (I^-), bromide ions (Br^-), and chloride ions (Cl^-).

12. (Original): The electrolyte composition according to claim 10 wherein the polyhalide ions are selected from the group consisting of Br_3^- , I_3^- , I_5^- , I_7^- , Cl_2I^- , ClI_2^- , Br_2I^- , and BrI_2^- .
13. (currently amended): The electrolyte composition according to claim 3-1 wherein the halogen-based redox pair includes one which is obtained by mixing iodine / iodide ions or bromine / bromide ions.
14. (currently amended): The electrolyte composition according to claim 3-1 wherein the halogen-based redox pair is formed reacting halide ions with halogen molecules.
15. (Original): The electrolyte composition according to claim 1 further comprising a gelator.
16. (Original): The electrolyte composition according to claim 1 further comprising additives which include a organic nitrogen compound, a lithium salt, a sodium salt, a magnesium salt, an iodide salt, a thiocyanate salt, and water.
17. (Original): A dye-sensitized solar cell comprising a transparent electrode substrate, a working electrode having an oxide semiconductive porous film formed on the transparent electrode substrate which is made of oxide semiconductive fine particles and having a photo-sensitizing dye absorbed thereon, and a counter electrode provided opposing the working

electrode, and an electrolyte layer comprising the electrolyte composition according to claim 1 which is provided between the working electrode and the counter electrode.

18. (Original): The dye-sensitized solar cell according to claim 17 wherein the transparent electrode substrate comprises a conductive layer made of a conductive material on a transparent substrate.

19. (Original): The dye-sensitized solar cell according to claim 18 wherein the transparent substrate includes glass, a transparent plastic substrate, and a polished plate of a ceramic.

20. (Original): The dye-sensitized solar cell according to claim 18 wherein the conductive layer includes a transparent oxide semiconductor selected from the group consisting of tin-doped indium oxide (ITO), tin oxide (SnO_2), fluorine-doped tin oxide (FTO), and mixtures thereof.

21. (Original): The dye-sensitized solar cell according to claim 18 wherein the conductive layer has a thickness of between about $0.05\ \mu\text{m}$ and $2.0\ \mu\text{m}$.

22. (Original): The dye-sensitized solar cell according to claim 17 wherein the oxide semiconductor porous film is a porous thin layer with a thickness between about 0.5 and $50\ \mu\text{m}$ containing as a main component oxide semiconductor fine particles which include titanium oxide (TiO_2), tin oxide (SnO_2), tungsten oxide (WO_3), zinc oxide (ZnO), niobium oxide (Nb_2O_5), and

mixtures thereof, where said oxide semiconductor fine particles have an average particle diameter between 1 nm to 1000 nm.

23. (Original): The dye-sensitized solar cell according to claim 17 measuring photoelectric conversion efficiency greater than 4.5%.